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### REMARKS

Applicants wish to thank the Examiner for considering the present application. In the Final Office Action dated September 1, 2005, Claims 1-8 are pending in the application. Claim 1 has been amended to correct a typographical error. Applicants respectfully request the Examiner to reconsider the rejections.

Claims 1 and 3-5 stand rejected under 35 U.S.C. §103(a) as being anticipated by *Karabinis* (6,052,585) in view of Nokia (EP 0 678 974).

Claim 1 recites a terrestrial communication system using satellite uplink and downlink frequencies used by a satellite that includes at least one terrestrial user terminal transmitting, without using said satellites, a first signal on at least one satellite downlink frequency and receiving, without using said satellites, a second signal on at least one satellite uplink frequency, wherein the first uplink frequency is different than the second uplink frequency.

Applicants have reviewed the *Karabinis* reference and can find no teaching or suggestion for the communication using different frequencies. The specification of the *Karabinis* reference that corresponds to the important portions of Fig. 1 are set forth in Col. 5, lines 18-45. These paragraphs specifically refer to the retransmitting station 50A and 50B. The retransmitting stations communicate with the satellite but also with the radio telephones 34. A second air interface 38 is used to communicate with the radio telephones. The air interface is described as a certain frequency range such as L or S band in Col. 4, line 53. However, the same bands are

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used for communicating with the retransmitting station. No teaching or suggestion is provided for different signal frequencies for the two different signals. In fact, the *Karabinis* reference appears to be teaching toward frequency reuse and not using two different signals. That is, the *Karabinis* reference specifically recites in Col. 2, lines 40-45, "allowing the mobile satellite radio telephone system to use the capacity of the fixed satellite radio telephone system in congested areas." Therefore, the *Karabinis* reference actually teaches away from using different communication frequencies.

The *Nokia* reference is cited for teaching different communication frequencies. However, the *Nokia* reference does not teach or suggest the use of satellite frequencies. Page 2, lines 45-55, are cited for operating on two different frequency ranges. However, the system set forth in the *Nokia* reference is common to cellular phone systems, particularly in Europe. In Europe, several different frequency ranges are set forth. Phones typically have the capability to switch between various systems. The systems used frequencies within a certain range. Once the system is selected, frequencies outside the particular system are not used. That is, a transmit frequency is not used from one system whereas a receive frequency range is used from another system. The receive and transmit signals are all used within the same system. Therefore, although the *Nokia* reference teaches different frequency ranges, the transmit and receive signals are all within the transmit frequencies of the frequency range and not different transmit and receive frequencies as specified in the present invention. Further, the *Nokia* reference does not teach that the frequencies set forth are within satellite uplink and downlink frequencies. Therefore, both of the references fail

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to teach or suggest transmitting a first signal on at least one satellite downlink frequency and receiving a second signal on at least one satellite uplink frequency wherein the first signal frequency is different than the second signal frequency. Applicants therefore respectfully request the Examiner to reconsider the rejection of Claim 1.

Claim 3 is also different in that two different frequencies are recited. Applicants respectfully request the Examiner to reconsider the rejection of Claim 3 for the same reasons set forth above with respect to Claim 1.

Claim 4 depends upon Claim 3 and is also believed to be allowable.

Claim 5 is independent and is similarly allowable for the same reasons set forth above with respect to Claim 1.

Claims 2, 6-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Karabinis* in view of *Nokia* in further view of *Dent* (5,848,060). Applicants respectfully traverse.

Claim 2, Claim 2 depends from Claim 1 and is believed to be allowable for the same reasons set forth above. Neither *Dent* nor *Nokia* teach or suggest using different uplink and downlink satellite frequencies in a terrestrial-based system.

Claim 6 depends from Claim 5 and is believed to be allowable for the same reasons set forth above.

Claim 7 recites a method of reusing satellite spectrum for terrestrial communications that includes comprising assigning satellite frequency bands so that terrestrial users and satellite users on the ground within the same geographic region

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use different satellite uplink and downlink bands, and pattern nulls to terrestrial antennas, that transmit and received signals from terrestrial users to block satellite interference. Applicants have reviewed Col. 50, lines 1-8, of the *Dent* reference and can find no teaching or suggestion for adding pattern nulls to terrestrial antennas that transmit and receive signals from terrestrial users to block satellite interference. The teachings set forth in Col. 50 are specifically directed to the antenna of a satellite. Applicants respectfully request the Examiner to reconsider the paragraph beginning in Col. 49, line 41. It is clear from these paragraphs that creating pattern nulls is set forth but the pattern nulls are used to cancel interference at neighboring cells or beams. Thus, the *Dent* reference does not teach adding pattern nulls to terrestrial antennas. Rather, the pattern nulls are for a satellite beam-based system. Applicants therefore respectfully submit that Claim 7 is allowable.

Claim 8 depends from Claim 7 and is also believed to be allowable for the same reasons set forth above.

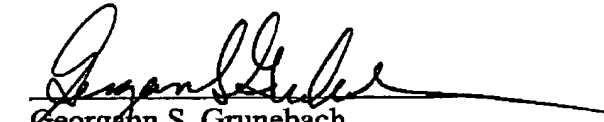
Claims 1-7 stand rejected under the judicially created doctrine of double patenting over Claims 1-4, 8, 17, 108, and 117 of U.S. Patent No. 6,735,437. Applicants submit herewith a Terminal Disclaimer which is believed to overcome the rejection.

In light of the above amendments and remarks, Applicants submit that all rejections are now overcome. Applicants have added no new material to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any

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questions or comments which would place the application in better condition for allowance, she is respectfully requested to call the undersigned attorney.

Respectfully submitted,

  
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